

# California Maternal and Child Health Data Book

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# *Foreword*

When planning health care services or making decisions about public health policy, having information available at the community level is very useful. To assist planners and policy makers, the Maternal and Child Health Branch, in collaboration with the Family Health Outcomes Project, put together the *California Maternal and Child Health Data Book*, which contains information on women and children showing trends in several health statistics. This publication is our third annual edition.

The data have been compiled from a number of sources. Both perinatal measures and injury measures are presented at the county and state level and for three city health jurisdictions; Berkeley, Long Beach, and Pasadena. Data can be used to see how areas of the State have advanced or regressed over the time period and areas can be compared relative to other areas. On most measures, we have ranked each county from best to worst, except for breastfeeding, which is ranked from the highest rate to the lowest rate. We did not rank the three city health jurisdictions because the city numbers are included in their respective county totals.

We chose the majority of indicators from previously published reports. These indicators were selected because they reflect some of the issues that affect women and children in California. Our criteria for inclusion were the following: (1) the perinatal indicators cover a significant proportion of the issues surrounding pregnant women and infants; (2) the data are readily available and reliable; (3) the childhood injury indicators cover the most common injuries that result in hospitalization or death; and (4) all the measures are consistent across counties and over time, which permits legitimate comparisons.

## TECHNICAL NOTES

**Rankings** – In the summary pages, counties were ranked for most measures from best (rank 1) to worst, except the *Birth Rate* and breastfeeding, which is ranked from the highest rate to the lowest rate. We did not rank *Number of Births* or *Number of Infant Deaths* because they are numerator data only. Whenever counties had the same rate, they were assigned the same rank. Counties with too few events or no events were omitted from the ranking for that indicator. In those situations, there will be fewer ranks than the number of counties (currently there are 58 counties in California). The three city health jurisdictions were not ranked because the city numbers are included in their respective county totals.

**Percent Change** – Percent change indicates the increase or decrease in a given indicator over a given period of time. For example, the value for 1990 is subtracted from the value for 2000, and the quantity is divided by the value for 1990. The results are then multiplied by 100 for readability.

**Number of Births** – The county where the birth takes place has a local registrar who prepares and maintains copies of original certificates. Original certificates are then mailed to the state registrar to keep as a permanent record. This number reflects births based on where the mother resides rather than where the birth occurred. The number of births for 1990 through 1996 was taken from the *Vital Statistics of California Reports*. The number of births for 1997 through 2000 were derived from the California Birth Statistical Master File for each year.

**Birth Rate** – The birth rate for 1990 through 1996 was taken from the *Vital Statistics of California Reports*. The birth rate for 1997 through 2000 was calculated using the number of births as the numerator from the California Birth Statistical Master File for each year. Denominator data for 1997 through 2000 came from the State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 1970-2040*, Sacramento, CA, December 1998.

The rate is per 1,000 estimated population. **Data for 2000 are preliminary and will change once a final denominator is released.** Counties were ranked from 1 to 58 with 1 representing the county with the highest rate.

**Teen Birth Rates** – The rates for both teens aged 10-14 and teens aged 15-19 were calculated using numerator data from the California Birth Statistical Master File. Denominator data is from the State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 1970-2040*, Sacramento, CA, December 1998. **Data for 2000 are preliminary and will change once a final denominator is released.** Teen birth rates are important because of poor birth outcomes babies of teen mothers encounter as well as the future effects on the mother herself. For the 10-14 teen birth rate, counties were ranked from 1 to 24, with 1 being the lowest 10-14 teen birth rate. For the 15-19 teen birth rate, counties were ranked from 1 to 56, with 1 being the lowest 15-19 teen birth rate.

**Percent Very Low Birth Weight** – The percentage of live-born babies weighing less than 1500 grams is an important measure because of the severe health problems these babies encounter. The numerator was derived from the California Birth Statistical Master File for each year and divided by the number of births for that same year. Counties were ranked from 1 to 38, with 1 being the lowest percent of very low birth weight births.

**Percent Low Birth Weight** – The percentage of live-born babies weighing less than 2500 grams is also an important group to identify because of the numerous problems all low birth weight babies may encounter. This percentage includes very low birth weight babies. The numerator was derived from the California Birth Statistical Master File for each year and divided by the number of births for that same year. Counties were ranked from 1 to 54, with 1 being the lowest percent of low birth weight births.

*Percent Prenatal Care in First Trimester –*

The percentage of women who received prenatal care in the first trimester (months 1 through 3) of pregnancy is noteworthy since receiving first trimester prenatal care tends to result in better birth outcomes. The numerator was derived from the California Birth Statistical Master File for each year and divided by the number of births for that same year, excluding cases with unknown data. Counties were ranked from 1 to 58, with 1 being the highest percent of first trimester prenatal care.

*Percent Late or No Prenatal Care –*

The percentage of women who received prenatal care in the third trimester (months 7 through 9) or who received no prenatal care is also important because late or no prenatal care is associated with negative birth outcomes. The numerator was derived from the California Birth Statistical Master File for each year and divided by the number of births for that same year, excluding cases with unknown data. Counties were ranked from 1 to 57, with 1 being the lowest percent of late/no prenatal care.

*Percent Cesarean Births –*

Births delivered by cesarean section are expressed as a percentage of all live births with a reported method of delivery. The percent of cesarean births for 1990 through 1996 was taken from the Vital Statistics of California Reports. Percentages for 1997 through 2000 were derived from the California Birth Statistical Master File for each year and divided by the number of births for that same year. Counties were ranked from 1 to 56, with 1 being the lowest percent of cesarean births.

*Number of Infant Deaths –*

Infant deaths are those deaths that occur during the first year of life. The number of infant deaths for 1990 through 1996 was taken from the Vital Statistics of California Reports. For 1997 through 2000, the number was derived from the California Death Statistical Master File for each year.

*Infant Death Rate –*

The rate is defined as the number of infant deaths in a given year per 1,000 live births for that same year. The infant death rates for 1990 through 1996 were taken from the Vital Statistics of California Reports. For 1997 through 2000, the numerator was derived from the California Death Statistical Master

File for each year. The denominator was derived from the California Birth Statistical Master File for each year. Counties were ranked from 1 to 37, with 1 being the lowest infant death rate.

*HIV Seroprevalance Rate –* This rate was taken from the HIV Seroprevalance in California Childbearing Women, 1994, 1995 and 1998. For years 1990 through 1995, between 130,000-155,000 live births in the State were tested by sticking the heel of those newborns and testing the residual dried-blood specimens. While the testing program was suspended from 1996 through 1997, it was reinstated in 1998. The rate is the number of HIV positive tests in a given year divided by the number of tests performed that same year. Counties were ranked from 1 to 21, with 1 being the lowest HIV seroprevalance rate.

*Percent of Women Breastfeeding at the Time of Hospital Discharge –*

The percent exclusively breastfeeding or with any breastfeeding is per 100 women asked at the time of hospital discharge, usually within 24 hours of the baby's birth. The percent excludes live births where the feeding choice is unknown. The percents use the "known feeding choice at discharge" as the denominator. *Percent with Any Breastfeeding* includes both those *Exclusively Breastfeeding* and those supplementing breastfeeding with formula. Estimates for the three cities were constructed on the basis of zip codes as described at the end of this section. For the percent exclusively breastfed, counties were ranked from 1 to 58, with 1 representing the best (highest percent of exclusively breastfed). For the percent with any breastfeeding, counties were ranked from 1 to 58, with 1 representing the best (highest percent with any breastfeeding).

*Assaultive Injuries for Women –* This measure provides an indicator of the number of women who encounter domestic violence in California. The numerator was taken from the Microcomputer Injury Surveillance System (MISS), Injury Surveillance and Epidemiology Section. Denominator data for 1990 through 1996 and 1998 were taken from the State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 1970-2040*, Sacramento, CA, December 1998. For 1997, denominator data are from the State of California, Department of Finance, 1997

*Population Estimates by Age, Sex, and Race/Ethnic Group*, June 1999. Data for 1999 were not available at the time of this publication. For 1998 hospitalizations, counties were ranked from 1 to 48, with 1 being the best (lowest rate of hospitalizations from assaultive injuries). For 1998 deaths, counties were ranked from 1 to 32, with 1 being the best (lowest rate of deaths from assaultive injuries).

*Hospitalization and Death Rates for Unintentional/Intentional Injuries* – The numerator for hospitalization data was taken from the Hospitalization Injury Surveillance System (HISS), Injury Surveillance and Epidemiology Section. Numerator for death data were taken from the Microcomputer Injury Surveillance System (MISS), Injury Surveillance and Epidemiology Section. Denominator data for 1990 through 1996 and 1998 were taken from the State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 1970-2040*, Sacramento, CA, December 1998. For 1997, denominator data are from the State of California, Department of Finance, *1997 Population Estimates by Age, Sex, and Race/Ethnic Group*, June 1999. Data for 1999 were not available at the time of this publication. For all ranked indicators in 1998, 1 is the best rank (lowest hospitalization rate or death rate).

For hospitalizations due to:

- motor vehicle injuries, counties were ranked from 1 to 56;
- poisoning, counties were ranked from 1 to 51;
- falls, counties were ranked from 1 to 58;
- burns, counties were ranked from 1 to 40;
- drowning, counties were ranked from 1 to 38;
- firearms, counties were ranked from 1 to 41;
- assault, counties were ranked from 1 to 52; and
- self-inflicted injuries, counties were ranked from 1 to 56.

For deaths due to:

- motor vehicle injuries, counties were ranked from 1 to 52;
- poisoning, counties were ranked from 1 to 26;

- falls, counties were ranked from 1 to 15;
- burns, counties were ranked from 1 to 14;
- drowning, counties were ranked from 1 to 40;
- firearms, counties were ranked from 1 to 18;
- homicide, counties were ranked from 1 to 38; and
- suicide, counties were ranked from 1 to 37.

Data for years 1998 and 1999 may be obtained from the Department of Health Services, Injury Surveillance and Epidemiology Section website at [www.dhs.ca.gov/EPICenter](http://www.dhs.ca.gov/EPICenter). It is important to note that the age groupings on the website are different from those published in the *Data Book*, therefore, data from the *Data Book* cannot be compared to data from the website.

*City Health Jurisdictions and Use of Zip Codes* – California has three city public health jurisdictions. Previously, information about those cities was not included in releases of this publication. Much of the data was developed from city identifiers within the source databases. For example, the California Birth Statistical Master Files contain information on mother's census place of residence. Thus, historical data for the cities could be developed. Numerators for the perinatal indicators were derived using the census place variable from the California Birth and Death Statistical Master Files for years 1990 through 2000. The breast-feeding databases, however, do not contain census place identifiers, and information on zip code of residence was used to approximate the city population. Zip codes associated with the cities of Berkeley, Long Beach, and Pasadena were selected as follows:

The U.S. Post Office web site was queried in 2001 for a list of zip codes associated with each of the three cities. The 1990 and 2000 California birth and death records for California were similarly queried for zip codes associated with any births or deaths for persons living in each of the cities. Then, all births and deaths for 1990 and 2000 were tabulated for the entire list of zip codes and findings were compared to the listings of births and deaths for residents of the cities. Zip codes were selected so as to minimize the combined errors of inclusion and exclusion of vital events.

Based on these criteria, the following zip codes were selected for each of the cities:

Berkeley: 94701-5, 94707-10, 94712, 94720.

Long Beach: 90801-10, 90813-5, 90822, 90831-5, 90840, 90842, 90844-8, 90853, 90888, 90899.

Pasadena: 91050-1, 91101-7, 91109-10, 91114-7, 91121, 91123-6, 91129, 91131, 91175, 91182, 91184-9, 91191.

The method includes a number of zip codes in which few or no vital events took place. Such is common for zip codes associated with office complexes. However, those zip codes were included because they were located within the city boundaries.

## FOOTNOTES

*a* = Rates or percents not calculated for fewer than five events.

*b* = Infant death ratios not calculated for counties reporting fewer than 1,000 live births.

*c* = Not calculated for fewer than 100 tested.

*d* = The methodology for calculating prenatal care has changed since the May 2000 publication; therefore, data differ slightly from those previously published. To conform to Vital Statistics standards, prenatal care in the first trimester is defined as care beginning in months 1 through 3. Late/no prenatal care is defined as care beginning in months 7 through 9 and includes no care. For rates, these numerators were divided by the total number of live births, excluding those with unknown data for prenatal care.

*e* = Data not available.

*f* = The methodology for calculating the breastfeeding percents has changed since the May 2000 publication; therefore, data differ slightly from those previously published. In prior editions, cases where race/ethnicity were unknown were excluded from the analyses. Data presented in this publication include cases where race/ethnicity was unknown.

- = No reported events.

*N/A* = (not applicable) We did not rank *Number of Births* and *Number of Infant Deaths* because they are numerator data only.

Note: A darker line appears between data for 1999 and 2000 because the birth rate and teen birth rates for 2000 are preliminary and will change once a final denominator is released from the State of California, Department of Finance